



1 READ ALOUD

1. Domestication is an evolutionary, rather than a political, development. They were more likely to survive and prosper in an alliance with humans than on their own. Humans provided the animals with food and protection, in exchange for which the animals provided the humans their milk and eggs and their flesh.
2. Akimbo, this must be one of the odder-looking words in the language and puzzles us in part because it doesn't seem to have any relatives. What's more, it is now virtually a fossil word, until recently almost invariably found in arms akimbo, a posture in which a person stands with hands on hips and elbows sharply bent outward, one that signals impatience, hostility or contempt.
3. The problem begins with the alphabet itself. Building a spelling system for English using letters that come from Latin – despite the two languages not sharing exactly the same set of sounds – is like building a playroom using an IKEA office set. Many other languages that sound nothing like Latin do well enough with versions of the Latin alphabet.
4. Modern buildings have to achieve certain performance requirements, at least to satisfy those of building codes, to provide a safe, healthy, and comfortable environment. However, these conditioned environments demand resources in energy and materials, which are both limited in supply, to build and operate.
5. Global warming is defined as an increase in the average temperature of the earth's atmosphere. This trend began in the middle of the 20th century and is one of the major environmental concerns of scientists and governmental officials worldwide. The changes in temperature result mostly from the effect of increased concentrations of greenhouse gases in the atmosphere.
6. As far as politics go, the responses are just as varied. Mitigation is common and calls for a reduction of emissions and less reliance on fossil fuels. Coal burning power plants are

now replaced with hydraulic power plants, and electrical cars are replacing some gasoline efficient cars. Many people, however, feel that this is not enough.

7. The border itself between Mexico and the United States is fraught with a mix of urban and desert terrain and spans over 1,900 miles. Both the uninhabited areas of the border and urban areas are where the most drug trafficking and illegal crossings take place. Crime is prevalent in urban cities like El Paso, Texas and San Diego, California.
8. Free trade is an economic policy under which the government does not interfere with trade. No tariffs are applied to imports or exports, and people are allowed to trade goods and services as they please. Supply and demand dictate the prices for which goods and services sell and are the only factors that determine how resources are allocated in society.
9. Unlike the United Kingdom, which has taken a relatively restrictive approach to the possession of arms, the United States has taken a more lenient approach. In the United States, three models have evolved regarding the interpretation of the meaning of the right to bear and keep arms as delineated in the Second Amendment.
10. Trade unions originated in Europe during the industrial revolution. Because of the machinery that had become commonplace, skilled labour became less in demand, so employers had nearly all of the bargaining power. Employers mistreated the workers and paid them too little for the work they did. Trade unions were organised that would help in the improvement of working conditions.
11. Unions take power out of the employer's hands on many issues. There are examples of cases where workers were engaging in sexual or racial harassment, but were protected by their unions and allowed to keep their jobs. Poor workers and excellent workers often receive the same pay and raise, giving no reason for a person to work harder than necessary at their job.
12. Another administration option is to bake marijuana at a relatively low temperature to kill any dangerous microorganisms and then allow that patient to eat it or drink it. Both of these methods of administration make smoking the drug unnecessary. However, criticism of medical marijuana has also been raised because as a natural plant, it cannot be patented and marketed by pharmaceutical companies and is unlikely to win widespread medical acceptance.

13. A smoking ban is a public policy that includes criminal laws and health regulations that prohibit smoking in certain public places and workspaces. There are varying definitions of smoking employed in this legislation. The strictest definitions define smoking as being the inhalation of any tobacco substance while the loosest define smoking as possessing any lit tobacco product.
14. Welfare has a special political meaning to the United States because it refers to how the poor receives financial aid. In comparison, welfare services are regarded as a universal right in other regions like Europe, where it is believed that all citizens should be able to obtain a minimal level of social support and well-being.
15. Tesla was offered the task of completely redesigning the Edison Company's direct current generators. In 1885, he claimed that he could redesign Edison's inefficient motor and generators, making an improvement in both service and economy. After a month of work, Tesla fulfilled the task and inquired about payment.
16. A young man from a small provincial town -- a man without independent wealth, without powerful family connections and without a university education -- moved to London in the late 1580's and, in a remarkably short time, became the greatest playwright not of his age alone but of all time. How did Shakespeare become Shakespeare?
17. Introverts, or those of us with introverted tendencies, tend to recharge by spending time alone. They lose energy from being around people for long periods of time, particularly large crowds. Extroverts, on the other hand, gain energy from other people. Extroverts actually find their energy is sapped when they spend too much time alone. They recharge by being social.
18. The problem begins with the alphabet itself. Building a spelling system for English using letters that come from Latin -- despite the two languages not sharing exactly the same set of sounds -- is like building a playroom using an IKEA office set.
19. Who do you think is the most glamorous person? A biotechnologist who led his company in international research, an ordinary welder who gained international fame through his work, or a photographer complimented widely for a series of photos?
20. The speaker is a marine biologist who became interested in the Strandlopers, an ancient people who lived on the coastline, because of their connection to the sea. Their way of life intrigued him. As a child he had spent a lot of time by the sea, exploring and

collecting things – so he began to study them, and discovered some interesting information about their way of life, how they hunted, what tools they used, and so on.

21. Yellow is the most optimistic colour, yet surprisingly, people lose their tempers most often in yellow rooms and babies cry more in them. The reason may be that yellow is the hardest colour to the eye. On the other hand, it speeds metabolism and enhances concentration; think of yellow legal pads and post-it notes.
22. Researchers gathered 160 uncaffeinated adults, people who consumed less than 500 milligrams of caffeine a week. These decaf subjects looked at pictures of various objects, then took either a placebo or a pill containing 200 milligrams of caffeine. That's roughly the amount you'd get from two cups of coffee.
23. Many papers you write in college will require you to include quotes from one or more sources. Even if you don't have to do it, integrating a few quotes into your writing can add life and persuasiveness to your arguments. The key is to use quotes to support a point you're trying to make rather than just include them to fill space.
24. Each tube-shaped microbot is a sandwich of three materials. A grapheme outer layer, which binds to heavy metals. A middle layer of nickel, which gives the bots magnetic polarity, so they can be pulled through wastewater with magnets. And platinum inside—for propulsion. Just add a bit of peroxide to the wastewater, and it'll react with the platinum to form water and oxygen bubbles, which propel the tubes along.
25. As a historian, if you really want to understand the sensibilities of those who lived in the past, you must be like a novelist and get into the skins of your characters and think and feel as they do. You are asked to imagine what it's like to be a peasant in medieval times, asking the sort of questions a peasant might ask. What the writer is saying is that a historian needs imaginative sympathy with ordinary people in the past.
26. Some people object that in order for the eye to modify and still remain a useful instrument to its owner, many changes would have had to take place simultaneously. However, it is not necessary to suppose this if the modifications were extremely slight and gradual.
27. Such cross-protection is usually seen between two animals. But Gore studies the same sort of mutualism in microbes. He and his team demonstrated the first experimental

example of that cross-protective relationship in drug-resistant microbes, using two strains of antibiotic-resistant E. coli bacteria: one resistant to ampicillin, the other to chloramphenicol

28. It is difficult to tell whether the speaker approves of Hemingway's lifestyle or not. He was famously macho and spent a lot of time hunting wild animals, going to wars and getting into fights. All these things got into his books, and the speaker thinks that this is not necessarily a good thing as it means that too many people prefer to read about his life than read his books.
29. Howard believed that all clouds belonged to three distinct groups: cumulus, stratus and cirrus. He added a fourth category, nimbus, to describe a cloud "in the act of condensation into rain, hail or snow". It is by observing how clouds change colour and shape that weather can be predicted, and as long as the first three types of cloud keep their normal shape, there won't be any rain.
30. A recent trend in the entertainment world is to adapt classic works of literature for either TV or movies. One argument is that this is to everyone's benefit, as it introduces people to works they might otherwise never have, but is rarely done successfully.
31. Roman writers and orators began to expand their imaginative and intellectual horizons and refine the Latin language through the study of Greek literature. Early Roman literature had two kinds; the recording and examination of public life and behaviour through life stories of famous men, and the particularly Roman art of satirical comedy and drama.
32. Clementson wanted to see if claims of question dodging actually held up, historically—not necessarily in the unique case of Trump. So Clementson analysed the transcripts of 14 presidential debates, from 1996 to 2012. Overall, he found 51 accusations of question dodging— 26 by Dems, 25 by Republicans.
33. By this time, however, paleontological momentum had moved to England. In 1812, at Lyme Regis on the Dorset coast, an extraordinary child named Mary Anning—aged 11, 12 or 13, depending on whose account you read found a strange fossilised sea monster, 17 feet long and now known as the ichthyosaurus, embedded in the steep and dangerous cliffs along the English Channel.

34. A university is a lot more than just classes and exams; university is a concept that offers you a host of possibilities to develop both academically and personally. Find out about the different projects, clubs and societies that are in your university. You will definitely find something you are interested in.
35. The term supernova was coined in the 1930s by a memorably odd astrophysicist named Fritz Zwicky. Born in Bulgaria and raised in Switzerland, Zwicky came to the California Institute of Technology in the 1920s and there as once distinguished himself by his abrasive personality and erratic talents. He didn't seem to be outstandingly bright, and many of his colleagues considered him little more than “an irritating buffoon”.
36. Trump has threatened to declare China, a currency manipulator, but experts say he has little legal or economic basis to take such a step. He has also threatened to impose a tariff of up to 45 percent on Chinese imports if Beijing doesn't “behave” a move that could lead to a trade war and damage the economies of both nations.
37. They controlled for the birds’ age, sex, body size and species. And they found that the hunted specimen’s brains were actually five percent smaller, on average than the brains of birds that died by other means. “The surprising thing is that, if you make a smaller kind of analysis of liver or heart size, there is absolutely no difference there. So this is specific to the brain. ”
38. Kindermann says he thinks the compound could be a win-win for the planet—and the animals. "You know the methane is kind of a waste product. And this energy, instead of losing it for the animal, it can be reused for the animal in terms of performance, and at the same time we are doing something for greenhouse gas emission and climate change." The product is not on the market yet—toxicology tests are ongoing.
39. What we found is that the plant is actually damaged by herbivores like most plants are in nature. And in response to that, it secretes sugar from the wound edges where the herbivores have damaged the plant." Tobias Lortzing is a graduate student at Freie University Berlin and one of the study authors.
40. At the end of this year, we will launch the Cup Class boats. So these will be about twice the power. The sailors are down in cockpits, unlike today. A lot of the power is being generated by these four grinders that are providing hydraulic power, and that energy is being used to control the flying surface, the hydrofoil, and is also being used to control the wing and the flaps, effectively the engine, of what we have.

41. "The situation is similar to a pregnant woman that has twin babies in her belly." Avi Loeb of the Harvard- Smithsonian Centre for Astrophysics. He's proposing the idea in a paper that's been accepted for publication in the Astrophysical Journal Letters.
42. The English Revolution has been interpreted in several ways by historians: as a fight between the aristocratic Cavaliers, who were open to life, and the serious Puritans; as a battle for power between parliament and the monarchy over the rights of Englishmen that had been going on for centuries; and as a class war similar to the French Revolution, of which it was a forerunner.
43. The speaker reminisced about his views of the English Revolution when he was a student and how it seemed quite clear which side he was on - the aristocrats', not the puritans'. Later he realised there was more to it than that and there were several ways of interpreting the Revolution: as a struggle between the king and parliament, as a class war or as an unpredictable situation without clear sides.
44. DeLone and McLean's model has been criticised by some authors. Indeed, this model is specific to contexts of voluntary use of information technology. The usage variable remains a success variable of information systems if the user himself decides to adopt or reject the technology. However, for mandatory uses, such as for ERP systems, the use of the technology is obvious. The success of information systems cannot, therefore, be measured by usage.
45. Currently, integration is increasingly needed in the business environment. This need emerges from the efficiency and synergy requirements necessary in a complex and turbulent environment. In other words, integration is needed to facilitate coordination, which is again related to the building of competitive advantage.
46. The primary application we're targeting at first is to give people a decision aid during rehabilitation, following an acute knee injury, to help them understand when they can perform particular activities, and when they can move to different intensities of particular activities." A useful thing to take a crack at.
47. There are perhaps three ways of looking at furniture: some people see it as purely functional and useful, and don't bother themselves with aesthetics; others see it as essential to civilized living and concern themselves with design and how the furniture

will look in a room - in other words, function combined with aesthetics; and yet others see furniture as a form of art.

48. Psychologist Saho Takagi, a graduate student at Kyoto University in Japan, strolls into one of Japan's many cat cafes. These establishments allow customers to pay an hourly fee for the chance to cuddle some cats. They're popular in Japan because so many apartment buildings forbid pet ownership. But Takagi isn't a typical customer. She's not there for feline affection, but to probe their minds.
49. Reiss took a stab at settling the argument with a meta-analysis—a study of studies—on whether people can really perceive better-than-CD quality sound. He analysed data from 18 studies, including more than 400 participants and nearly 13,000 listening tests. Overall, listeners picked out the better-than-CD-quality track 52.3 percent of the time. Statistically significant, if not all that impressive.
50. To understand the past, you have to be able, as far as possible, to think like the people in the period you are studying thought. The example of what it must have been like to be a peasant in the middle Ages is used. However, sensibilities change over time, and we can't completely throw off the mentality of the present. Therefore, every age will have a slightly different perspective on the same period of the past, no matter what the facts are.
51. There are three main interpretations of the English Revolution. The longest lasting interpretation was that the Revolution was the almost inevitable outcome of an age-old power struggle between parliament and crown. The second sees it as a class struggle and a lead-up to the French and other revolutions. Finally, the third interpretation sees the other two as too fixed, not allowing for unpredictability, and that the outcome could have gone either way.
52. The researchers enlisted real mothers and infants and quantified their interactions, which fell into four categories. One: babies wanted to maximise the amount of time smiling at their mothers. Two: they wanted to maximise the time the mothers smiled at them. Three: they wanted to experience simultaneous smiling, and four: no smiling at all.
53. A university is not a business. More precisely, a not-for-profit college or university is significantly different than a for-profit business. A university has no owners; it is a public trust. Without owners, it has no one to pay dividends to and no one for whom it must

maximise its profits. Business has a single overriding goal: the maximisation of return for the owners. A university has a multiplicity of goals: to foster learning, to create knowledge, and to serve its community.

54. The tsunamis could provide crucial information about the habitability of ancient Mars. The first one occurred when the planet must have been relatively warm and amenable for life because it carved out backwash channels as it returned to the sea. By contrast, the planet had become much cooler by the time the second tsunami hit—the waters apparently flash-frozen after flowing onto the surface.
55. Britain, then, was slower to create and develop a police force than the rest of Europe: France had one long before - indeed, the word police is taken from the French. This fact was not unimportant, as the very idea of a police force was seen as foreign - that is, French - and particularly undesirable, and was generally regarded as a form of oppression.
56. "Thompson recognised and exploited all the ingredients of a successful amusement ride," writes Judith A. Adams in *The American Amusement Park Industry*. "His coasters combined an appearance of danger with actual safety, thrilled riders with exhilarating speed, and allowed the public to intimately experience the Industrial Revolution's new technologies of gears, steel, and dazzling electric lights."
57. The initial thud comes from when those dorsal bursae collide. And the reverberation results from the vibrations that linger when the tissues pull apart. But Thode the younger says the bursae have to be somewhat sticky for the clapping together and snapping apart to produce a noise with the correct loudness and pitch. That stickiness comes courtesy of the mucus.
58. Usually, age is determined by physical characteristics, such as teeth or bones. Great—if you have a body. Researchers have tried unsuccessfully to use blood. But in this study, the scientists used immune cells called T-cells. T-cells recognise invaders through receptors that match molecules on bacteria, viruses, even tumours. The cellular activity that produces these receptors also produces a type of circular DNA molecule as a by-product.
59. This study marks the first time scientists have linked dyke formation to large, damaging earthquakes, and Wauthier is looking back through history for more examples. She says researchers will never be able to predict exactly when an earthquake might strike after a

dyke intrusion. But at least now, researchers and rift zone residents know they're not just in for bangs—they may also be in for shudders.

60. In comparing material with non-material culture - the first being the objects and technologies we create, and the second our customs, beliefs and attitudes - the speaker gives greater emphasis to the material culture. He gives the example of the development of genetic science and the benefits it has brought to mankind, despite a fair amount of opposition.
61. Study author Samuel Shian, a materials scientist, says this smart glass is cheaper than others and uses minimal power—much less, for example than something like a curling iron. And since it's flexible and foldable, he says it could even be used for things like camouflage uniforms, to switch, for example, from green and brown to white and grey. "This would be very useful when the background landscape suddenly changes, such as during early snowfall."
62. For the purposes of argument, culture is divided into material and non-material, and the speaker's aim is to show how they both affect each other. Material developments in tools and technology can affect non-material culture, our customs and beliefs, and the other way around. Genetics is used as an example as it has changed the way we think about life, but also our beliefs have affected its rate of development.
63. Beauty contests, whether it's Miss Universe or Miss Teen International, are demeaning to women and out of sync with the times. Opponents say that they are nothing more than symbols of decline. Since Australians Jennifer Hawkins and Laurnyn Eagle were crowned Miss Universe and Miss Teen International respectively, there has been a dramatic increase in interest in beauty pageants in this country.
64. At random times throughout the day, the program asked some 2,200 participants what they were doing, what they were thinking about and how they felt. It turns out that people spend nearly half their waking hours thinking about something other than what they're doing. And that whether and where their thoughts tend to stray is a better predictor of their feelings than what they're actually up to.
65. Pudritzl and Heller suggest that hunters of extraterrestrial life may want to listen particularly closely for signals originating at star systems within that narrow band of galactic sky. Advanced civilisations there may have already detected us using the transit

method, they say, and may now be sending us a message. You might think of this paper, then, like a treasure map, for intelligent life.

66. Networking is easy and fun because it taps into this human predilection to talk about ourselves when asked. Consider successful networking as little more than the process of guiding a person to tell you about his life, what he's doing, the company that employs him, and his current industry.
67. To examine what we really think about creativity, scientists asked students to present ideas for how airlines can get more revenue from their passengers. Half the students were told to come up with novel solutions, and the rest were asked to stick with something more tried-and-true. Other students who then listened to these pitches rated those who were innovative as having less leadership potential.
68. The second group that is particularly vulnerable are night shift workers, and the third group that is particularly vulnerable are people with sleep disorders, particularly sleep apnea. One out of three men and one out of six women have sleep apnea. And yet, 85 percent are undiagnosed and untreated. And it more than doubles the risk of crashes.
69. "The caterpillars that feed on trees are trying to match the hatching of their eggs to the timing of bud burst. The caterpillars want to feed on the juiciest and least chemically protected leaves. And it's not just the caterpillars, of course, that are important. But the knock-on effect is on nesting birds, which are also trying to hatch their chicks at the same time that there's the maximum number of caterpillars."
70. But they did find something that had a much bigger impact on wildlife: habitat quality. The best predictor of wildlife abundance was not human activity, but factors like forest connectivity, nearby housing density, and the amount of adjacent agriculture. The results were published in the Journal of Applied Ecology.
71. The devices revealed that the crack grew almost a centimetre wider during the warmest part of the day. It shrank again when temperatures cooled off, for instance, at night and during the winter. But overall, the scientists found that the average width of the fracture grew over the course of a summer and over the entire three and a half-year study period, bringing the crack closer to breaking.

72. Collins and Greg Stock, Yosemite's park geologists, wanted to know if small rock movements, induced by changing temperatures, might weaken cracks and contribute to rock falls. So the researchers who were both climbers found a suitable fracture near the base of a 500-meter-tall cliff and installed instruments called crack meters, which monitored the width of the crack over time.
73. It's not that human activities didn't impact wildlife at all of course. Heavily hunted species, like white-tailed deer, grey squirrels, and racoons, were photographed somewhat less often in hunted areas. Coyotes showed up more often in hunted areas. While most species didn't avoid hiking trails, the predators actually preferred them.
74. Public lands in the U.S. are managed with two goals in mind: protecting biodiversity and providing people with recreational opportunities, a chance to connect with nature. But sometimes those two goals are at odds, especially if recreation, activities like hiking or hunting, disrupts wild animals enough to alter their use of those landscapes.
75. Over time a split would have appeared in wolf populations, he says those wolves that feared humans and those that didn't. "So this would have facilitated, I think, the domestication process. "At which point humans deliberately took wolves as pets. But that domestication process, Frantz says, may have happened more than once: first in the west, in Europe. And again in the Far East, in Asia.
76. Nell says that, in order to seek to protect from their furry foes, birds actually prefer to build their nests in plots of the swamp with a resident alligator. In fact, in one study a graduate student planted fake alligators. The birds seemed to prefer to build nests close to them. "Where there's a water source, there are alligators, so it's sort of this moat of protection around these colonies."
77. The big question now is how much these epigenetic changes actually influence the next generation. Barres is now comparing fathers' sperm to the cord blood of their babies, to find out. But the finding suggests a mechanism by which our actions, our eating habits, our fitness, can affect our children. Which might make you wonder: what should you be eating?
78. Such an agreement would include recognition that the world must aim as soon as possible to hold global warming to 1.5-degree Celsius; a long-term low-carbon future; 5-year updated action plans that recognise the developing climate reality; and aid to those countries that did little to cause climate change but are most at risk from it.

79. Historically what has been used to estimate bats has been photographic estimates, visual estimates, mark-recapture estimates, and those have been highly prone to bias. “Newer technology, like thermal imaging cameras is accurate but expensive. So at a time of epic bat mortality, due to, for example, the fungal white nose syndrome that’s wiping out bats in Canada and the U.S”.
80. Then the researchers thought, what if they could tap into this energy to develop a sort of sweat-powered “bio battery” Their proof-of-concept setup topped out at only about 4 microWatts of juice-not even enough to run a watch. But with better electronics, exercising in the future could make dirty clothes and some clean energy.
81. Irony, however, usually needs an audience; and not only does it need some people to get the point, but it also very much needs there to be people who don’t. There is, it has to be said, a rather undemocratic air of superiority about it.
82. In 1998. James Thompson pronounced that he had isolated human embryonic stem cells in the laboratory. At last, these powerful cells were within the grip of scientists to experiment with, understand, and develop into fixes for the things that go wrong.
83. Dolphins, whales and porpoises are all social animals, but some species are more sociable than others. This depends on the environment because a species adopts the lifestyle most suitable for this. Among dolphins, forming groups makes it easier for them to find food, reproduce and gain knowledge. They are safer, too, because dolphins can communicate danger when there are threats around.
84. Clichés are worn-out, overused and over-familiar phrases, and the etymology of the word helps to explain this. Originally, a cliché or stereotype was a printer’s term for a pre-set block of type with phrases frequently used in the newspapers. The word has since adopted a negative meaning, and careful writers avoid them where they can.
85. The medical centre issued a statement saying that patient care was not compromised while their data was unavailable. Still, it’s unsettling to hear that a hospital is shut out of parts of its own computer systems and unable to communicate electronically.
86. Cooking certainly tenderises food, making it easier to chew and digest. But evidence for human cook fires goes back only about 500.000 years if that. Homo erectus had already evolved weaker jaws, and smaller teeth, more than a million years before that. So

Lieberman and his colleague Katherine Zink began their investigation by recreating a Palaeolithic dinner: yams, carrots, beets, and goat meat.

87. In order to achieve the free flow of goods and services, with work and capital between the member countries, they needed to establish mutual politics in areas as diverse as agriculture, transport, and working conditions. When they had agreed on these policies, they became legal. Now, though, the EU is concerned with a far wider range of issues.
88. Dolphins have adopted group living as a response to living in close contact with other animals in the ocean, some of which kill dolphins for food. Living in social groups makes it easier to hunt for food and, in a dangerous environment, it makes sense in terms of safety to move about in large numbers.
89. Stem cells are the body's master cells, the rare material from which we are built. Unlike normal body cells, they can reproduce an indefinite number of times and, when manipulated in the right way, can turn themselves into any sort of cell in the body. The most versatile stem cells are those found in the embryo at just a few days old. This ball of a few dozen stem cells eventually goes on to form everything that makes up a human.
90. When the European Economic Community was established in 1957, its aim was, in broad terms, to move towards closer political and economic cooperation. Today, the much bigger European Union has a far-reaching importance on many aspects of our lives, from the conditions we work under, to the safety standards we must adhere to, and the environment in which we live.
91. The primary application we're targeting at first is to give people a decision aid during rehabilitation, following an acute knee injury, to help them understand when they can perform particular activities, and when they can move to different intensities of particular activities. A useful thing to take a crack at.
92. Aldina Franco of the University of East Anglia is one of the scientists who studied the storks' use of landfills in Portugal. GPS tracking devices on 17 birds showed that the landfill life might mean up to 100-kilometer round-trips to feed healthy distances, but far shorter than their historic migration routes.
93. The researchers think that this kind of coordination might have evolved because woodpeckers invest so much time and energy carving out their nest hole in a tree. If

they were kicked out and had to start over, they might not get a chance to reproduce and fledge their offspring.

94. The Roman state was tested almost to destruction by the defeat at Cannae by the Carthaginians led by Hannibal - and according to the historian Polybius, it was only what he called the “peculiar virtues” of the Roman constitution that allowed it to survive this crisis.
95. What we experience is processed by the brain into memories in three stages. First, there is the sensory input, which is momentary. This is then stored in the short term memory. If this experience is important or meaningful to us, we will reinforce the memory, possibly by repetition, and it will then be stored in the long-term memory.
96. Over the centuries, the holiday evolved. And by the 18th century, gift-giving and exchanging hand-made cards on Valentine’s Day became common in England. Handmade Valentine’s cards made of lace, ribbons, and featuring cupids and hearts eventually spread to the American colonies. The tradition of Valentine’s cards did not become widespread in the United States, however, until the 1850s.
97. Although Botswana’s economic outlook remains strong, the devastation that AIDS has caused threatens to destroy the country’s future. In 2001, Botswana had the highest rate of HIV infection in the world. With the help of international donors it launched an ambitious nation’s campaign that provided free antiviral drugs to anyone who needed them, and by March 2004, Botswana’s infection rate had dropped significantly.
98. Florida's Everglades are home to lots of large wading birds, like egrets and herons. But the Glades also have lots of raccoons and possums. For the mammals, the birds’ nests are an all-you-can-eat buffet. And when an invasion occurs,” sometimes thousands of birds will abandon their nests. And leave, and there’s littered remains of dead chicks and eggs that have been eaten.” Stated Lucas Nell, an ecologist at the University of Georgia.
99. But the connection does suggest your photos and social media posts can be used for more than bragging about brunch. “Sharing this data could be so valuable for academic research. We can actually use this data to do something good in the world.” Like giving local organisations and urban planners a better look at how and why cities change. All you’ve got to do is add a few tags.

100. The audio, which includes more than 1,000 separate data files, was captured in the early 1970s by the late Hetty van de Rijt. She recorded the various screams, barks, and hoo calls made by a group of chimps, including 17 youngsters, living in the Goombe National Park in Tanzania.
101. Investigators also compared those microbes with those living in 52 other soil samples taken from all around the planet. The park had organisms that also exist in deserts, frozen tundra, forests, rainforests and prairies. Antarctica was the only area that had microbes that did not overlap with those found in Central Park. Only a small percentage of the park's microbes were found to be already listed in databases.
102. Some of the pain patients may become hooked. Or their meds may find their way to friends or relatives who take them recreationally. Or a prescription opioid user may transition to heroin. "Heroin is just another opioid drug, so the brain doesn't distinguish whether it comes from a pharmacy or from a street drug dealer....."
103. So there's tremendous availability of prescriptions. There are some 260 million prescriptions written in each year for opioids. That's not tablets, that's prescriptions. So it's millions and millions of these, and some of them are available for diversion and used inappropriately.
104. It's projected that, over the next hundred years, temperatures on Earth could rise an average of nearly five degrees Celsius. While some animals might be able to migrate north to escape the brunt of the heat, plants can't uproot themselves quite so easily. Researchers wondered whether the creatures that disperse plant seeds might be able to help.
105. The scientists say this is the first documented instance of nectar that attracts a particular animal assistant being produced outside of a nectary. In fact, the observed nectar bleeding might actually be an early system that evolved to include the nectarines found in other plants today. A process that, though not short, was certainly sweet.
106. Investigations like this one have been plodding along for 40 years, and some studies like one following the deadly Kobe quake in 1995- have found similar correlations. But study author Alasdair Skelton, a professor of geochemistry at Stockholm University, says the unpredictable study subject makes it tough to get funding, "because you can in no way guarantee a result. So, I get three years of money, but if there's no earthquake, there's no result."

107. In 1861, Matthew Brady, a well-known portrait photographer, approached President Lincoln requesting permission to move freely about the country photographing the Civil War. Lincoln granted him permission to travel anywhere with the Union armies, and his record of this conflict brought home to millions the horrors of war.
108. The most powerful among these were the Mthethwa under the leadership of Dingiswayo, who radically changed some aspects of traditional life during his reign. Formerly, military activity was based on local recruitment; men from a district would fight together under their chief.
109. While clichés in writing reveal lazy thinking and are to be avoided at all costs, in the graphic arts, they become essential, helping to get the message across quickly, clearly and with emotional force. This is especially true of advertising and propaganda where the impact must be immediate
110. A team of Johns Hopkins scientists study sodium channels responsible for electrical signalling in nerve cells from humans and from cockroaches. Spider venom protein messes with this sodium channels, which is why venom is dangerous. The researchers then use spider venom protein to disrupt the channels and thus clarify exactly how the channels function.
111. The researchers think that long-distance fliers such as the American golden-plover and the white-rumped sandpiper picked up the spores while lining their nests. Then when the birds arrive in new places they moult, leaving behind the feathers and their precious cargo to start growing again at the other end of the world.
112. Not all solar energy capture devices make electricity directly. For example, steam generated from solar energy can turn turbines, which then produce electricity. And, in what could be especially useful in remote regions, solar steam can desalinate water and be used in sanitation and equipment sterilisation.
113. For centuries, Atlantis has been one of the western world's favourite legends, a tantalising blend of fantasy and mystery. Stories tell of a rich and glorious empire that was lost to the sea where some hope its ruins still lie, waiting to be discovered.

114. Once you've picked a general topic for your paper, you need to come up with a thesis. Your thesis is the main and focal point of your paper and it's the position you'll take on your particular topic. Formulating a strong thesis is one of the most important things you need to do to ace your paper.
115. Researchers tested water and sediment at the Cedars. Some samples got dosed with mercuric chloride to kill any life present. Those dosed samples produced no methane. But the samples in which microbes were allowed to survive did put out methane, confirming that at least some of the methane at the springs is indeed biological in origin.
116. Chakraborty studied that process in large thunderstorm systems over the tropical, using data from geostationary and circumpolar satellites. he found that when more aerosols seed the air, like in places with lots of industrial or agricultural pollution, the same amount of water vapour gets absorbed by a larger number of aerosols, meaning tinier than usual cloud particle size.
117. But that blockage can be cleared by applying an electric field of 1600 volts per centimetre, parallel to the chocolate's flow. The effect would allow chocolatiers to cut the cocoa butter by 10 to 20 percent and still not clog the pipes. The study appears in the Proceedings of the National Academy of Sciences.
118. The problem is that increased immune vigilance has a side effect: allergies. "Our speculation is that this is some kind of trade-off. In the past, you needed to resist some kind of pathogen, and the trade-off or sacrifice you have to make is increased responsiveness to nonpathogenic allergens." So next time some of you get the springtime sniffles, blame your distant ancestor the one with the heavy brow ridge.
119. Nell and his colleagues took to the Everglades at night, hunting for gators near and far from nests." You have to use a spotlight, and you see the little demon eyes shining out of the marsh." They lassoeed the gators, pulled them into the airboat, and took blood samples and body measurements.

2 COPYRIGHT AND DISCLAIMER

We acknowledge all the information and memory notes provided by students. We also acknowledge open sources from various books and journal articles. All questions and answers are prepared and annotated by the Australian Institute of Language. All rights reserved. Not for any commercial purposes, for personal study only.

We have tried to provide as accurate information as possible to assist all students with their exam preparation. Please note, however, that due to the reliability of the memory, there may be subtle differences in words and phrases. In actual exams, please carefully read the questions before using any of the sample answers.

If you would like to provide any information about the content or raise a question, please contact pte@ail.vic.edu.au . We would appreciate your feedback.

© Australian Institute of Language

